

WHAT IS CLAIMED IS:

1. An indole alkaloid compound having a molecular weight greater than about 980 daltons.
- 5 2. A trimer alkaloid compound having a molecular weight of greater than about 980 daltons, having at least one vindoline or vindoline-based monomer.
- 10 3. A compound isolated from a *Catharanthus* plant having a molecular weight in the range of about 980 to about 2000 daltons, having at least one vindoline or vindoline-based monomer.
- 15 4. The compound of claim 2, having a second vindoline or vindoline-based monomer.
5. The compound of claim 4, having a third monomer selected from the group consisting of vindoline, catharanthine, vindoline-based and other monomers.
- 20 6. The compound of any one of claims 2 to 4, having a catharanthine monomer.
7. The compound of claim 4, having a molecular weight selected from the group of molecular weights set forth in Table 5.
- 25 8. The compound of claim 4, having a molecular weight of about 1279 daltons.
9. The compound of claim 4, having a molecular weight of about 1281 daltons.
10. The compound of claim 4, having a molecular weight of about 1283 daltons.
11. The compound of claim 4, having a molecular weight of about 1347 daltons.
12. The compound of claim 4, having a molecular weight of about 1351 daltons.

14. An extract of a *Catharanthus* plant, said extract containing one or more compounds, having a molecular weight in the range of about 980 to about 2000 daltons, having at least one vindoline or vindoline-based monomer.

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15. An extract of a *Catharanthus* plant resistant to *Phytophthora*, said extract containing one or more compounds, having a molecular weight in the range of from about 980 to about 2000 daltons, having at least one vindoline or vindoline-based monomer.

- 10 16. The extract of claim 14, having a second vindoline or vindoline-based monomer.

17. The extract of claim 14, wherein said compound further has a third indole monomer, selected from the group consisting of vindoline, catharanthine, vindoline-based and other monomers.

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18. The extract of claim 14, having a compound with a molecular weight of from about 1279 to about 1283.

19. The extract of claim 14, having a compound with a molecular weight of from about 1347 to about 1351.

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20. A trimer compound isolated from a *Catharanthus* plant resistant to *Phytophthora* having a molecular weight greater than about 980 daltons.

21. A compound isolated from a *Catharanthus* plant resistant to *Phytophthora* having a molecular weight in the range of from about 980 to about 2000 daltons, having at least one vindoline or vindoline-based monomer.

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22. A derivative or a pharmaceutically acceptable salt of the compound of any one of claims

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23. A pharmaceutical composition comprising an effective amount of the compound of any one of claims 3, 6, 20 and 21 or a pharmaceutically acceptable salt thereof as an active agent and a pharmaceutically acceptable carrier.

5 24. A pharmaceutical composition comprising an effective amount of the extract of any one of claims 14 to 19 as an active agent and a pharmaceutically acceptable carrier.

10 25. A pharmaceutical composition comprising an effective amount of the derivative or pharmaceutically acceptable salt of claim 22 as an active agent and a pharmaceutically acceptable carrier.

X 26. A method comprising administering the pharmaceutical composition of claim 23 to an individual in need of said agent.

15 27. A method comprising administering the pharmaceutical composition of claim 24 to an individual in need of said agent.

XII 28. A method comprising administering the pharmaceutical composition of claim 25 to an individual in need of said agent.

20 29. A method comprising administering the pharmaceutical composition of claim 23 to a plant in need of said agent.

25 30. A method comprising administering the pharmaceutical composition of claim 24 to a plant in need of said agent.

31. A method comprising administering the pharmaceutical composition of claim 25 to a plant in need of said agent.

30 32. The method of claim 26, wherein said individual has a fungal infection.

The method of any one of claims 26 to 28, wherein said individual has a fungal infection.

34. The method of any one of claims 29 to 31, wherein said administration is to protect said plant against disease.
- 5 35. The method of any one of claims 29 to 31, wherein said administration is to protect said plant against predation.